

METHOD FOR DETERMINING SPIN CHARACTERISTIC PARAMETERS IN  
SPUN OPTICAL FIBERS

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ABSTRACT

5        A method (600) of determining characteristic spin  
parameters ( $T, T_i$ ) of a spun optical fiber (105), comprising:  
performing (610, 615) optical time-domain reflectometry  
measurements on the fiber, so as to obtain a State Of  
Polarization (SOP) spatial function from a backscattered  
10    electromagnetic field, the SOP spatial function being  
defined by a plurality of components; and processing the SOP  
spatial function (625-650). The processing comprises:  
calculating a further spatial function related to the  
spatial first derivative of at least one of said components  
15    of the SOP spatial function; identifying a spatial  
periodicity of said further spatial function; and  
determining said characteristic spin parameters as a  
function of said spatial periodicity (630-650).

(Figure 4)

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